

REMARKS

Claims 1-15 are pending. Claims 1, 12 and 15 are rejected as being anticipated by Djokovich et al. (U.S. Patent No. 6,952,458). Claims 2 and 13 are rejected as being obvious over Djokovich et al. in view of Antoine et al. (U.S. Pub. No. 2003/0152157). Claims 3-11 and 14 are indicated as allowable if rewritten in independent form to include all limitations of base claims and any intervening claim.

The applicants respectfully traverse the Examiner's anticipation rejection for at least two reasons. First, the Examiner states that Djokovich et al. discloses receiving a multicarrier wireless telecommunication data signal without accompanying pilot signals and points to Fig. 2B, 251, 210 of Djokovich et al. However, careful review of Djokovich et al. reveals that the telecommunication data signal involved in Djokovich is not wireless. Fig. 2B, 251 is a "line" as stated at Col. 3, line 57 of Djokovich et al. Fig. 2B, 210 is an AFE which according to Djokovich et al. "comprises a **line driver**, an analog-digital converter and an amplifier." (emphasis added) Col. 3, lines 66-67. Thus, Fig. 2B of Djokovich et al. is seen to be directed to a standard type modem which is wired (i.e., it is coupled to a line, and the interface is a line driver). Such a system would not include a pilot signal because it does not use a multichannel wireless type signal. Stated another way, the fact that the modem of Djokovich et al. is pilotless is a function of the type of modem it is – not a function of it being similar to the presently claimed invention. Indeed, Djokovich et al. do not state in their patent that their system is "pilotless", because in their system there is no consideration of having pilot channels. Their system is a very different type of system.

To further distinguish the claimed invention from the Djokovich et al. system, the applicants have also amended the independent claims 1, 12 and 15 to indicate that the multicarrier system of the invention includes at least three carriers. The system of Djokovich et al. appears to have a single QAM carrier. Although Col. 3 of Djokovich et al. discusses QAM as having two carriers, those carriers are combined to produce a single carrier waveform. See Djokovich et al. Col. 3, lines 35-36. Thus, the multicarrier system of the presently claimed invention is better defined and distinguished relative to Djokovich et al., and the applicants respectfully request that the Examiner reconsider and withdraw the anticipation rejection over Djokovich et al.

With respect to the obviousness rejection of claims 2 and 13, the Examiner argues that Antoine et al. teaches extracting per-carrier phase and amplitude adjustment information from the wireless telecommunications data signal, and that it would be obvious for one skilled in the art to incorporate the extraction as disclosed by Antoine into the invention of Djokovich. The applicants respectfully traverse this rejection for the following reasons. First, Antoine et al. teaches away from the presently claimed invention because it specifically teaches the use of pilot tones. Indeed the entire Antoine et al. specification and the claims are directed to use of those pilot tones. Second, the signals that the Examiner says Antoine teaches to extract in paragraph 52 are not stated in Antoine to be per-carrier phase and amplitude adjustment information. Third, even if the information extracted by Antoine was per-carrier phase and amplitude adjustment information, Antoine would be extracting that information for pilot tone carriers which are not present in the system of the claimed invention (or in Djokovich). Fourth, as is abundantly clear from the other issues stated above, the Djokovich et al. and Antoine et al.

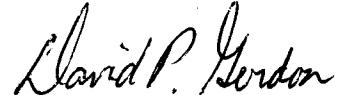
systems and methods relate to completely different technologies and are not combinable by one skilled in the art in any reasonable manner.

The test for obviousness is what the combined teachings of the prior art would have suggested to one of ordinary skill in the art. In re Keller, 208 U.S.P.Q. 871 (CCPA 1981). In establishing a *prima facie* case of obviousness under 35 U.S.C. §103, it is incumbent upon the Examiner to provide a reason why one of ordinary skill in the art would have been led to modify the prior art reference or to combine reference teachings to arrive at the claimed invention. Ex parte Clapp, 227 U.S.P.Q. 972 (BPAI 1985). To this end, the requisite motivation must stem from some teaching, suggestion or inference in the prior art as a whole or from the knowledge generally available to one of ordinary skill in the art and not from the Applicant's disclosure. Uniroyal, Inc. v. Ridkin-Wiley Corp., 5 U.S.P.Q.2d 1434 (Fed. Cir. 1988). Stated another way, it is impermissible to first ascertain factually what the [inventors] *did* and then view the prior art in such a manner as to select from the random facts of that art only those which may be modified and then utilized to reconstruct [inventors'] invention from such prior art. Panduit Corp. v. Dennison Mfg. Co., 227 U.S.P.Q. 337, 343 (Fed. Cir. 1985) (citing In re Shuman, 361 F.2d 1008, 1012, 150 U.S.P.Q. 54, 57 (C.C.P.A. 1966).

Here, the Examiner has done exactly what is forbidden by the law; to wit, the Examiner has ascertained what the inventors did and then viewed the prior art in such a manner as to select or pluck from the random facts of that art only those which may be modified and then utilized to reconstruct the inventors' invention. Thus, it is respectfully submitted that the obviousness rejection cannot be maintained and should be withdrawn.

In light of all of the above, it is submitted that the claims are in order for allowance, and prompt allowance is earnestly requested. Should any issues remain outstanding, the Examiner is invited to call the undersigned attorney of record so that the case may proceed expeditiously to allowance.

Respectfully submitted,



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